

08/246,113

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**UNITED STATES DEPARTMENT OF COMMERCE
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08/246,113

07/20/96

TLX SERAS. 002

EXAMINER

ART UNIT

PAPER NUMBER

9

DATE MAILED:

03/26/96

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on APR. 1, 1996 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-52 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-52 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

Art Unit: 1208

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-4, 6-10, 17, 18, 20-27, 30-35, 37, 38, 40-45, and 48-62 are rejected under 35 U.S.C. § 102(b) as being anticipated by Khandros et al. 5,148,265 of record.

See Khandros et al. (esp. abstract; Fig's. 3 and 7; col. 4, line 36-col. 5, line 2; col. 7, line 15-col. 8, line 17; col. 9, line 48-col. 10, line 24; paragraph bridging col's. 10 and 11; col. 14, line 19-col. 15, line 4; and col. 17, lines 21-44). In this rejection, the mold and interposer of Khandros et al. correspond to applicants' "encapsulation barrier" and "protective barrier", respectively.

3. Claim 5 is rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Getson 4,913,930 of record.

The especially pertinent portions of Khandros et al. are referred to in the preceding paragraph. While Khandros et al. may not disclose the use of a plural reactive component encapsulation material, it would have been obvious to one skilled in the art at the time applicants' invention was made to use such encapsulation material shown to be old by Getson (col. ³2, line 65-col. 5, line 9) in the method of Khandros et al. to take advantage of shorter cure time and low temperature.

Art Unit: 1208

4. Claims 11-15, 35-38, and 46 are rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Moser et al. 4,312,116 of record.

The especially pertinent portions of Khandros et al. are referred to in ¶ 2 above. While Khandros et al. may not disclose the use of an aluminum cap or can, it would have been obvious to one skilled in the art at the time applicants' invention was made to use such Al cap or can shown to be old by Moser et al. (col. 2, line 49-col. 3, line 25) in the method of Khandros et al. where an ultimate product packaged in a cap or can is desired.

5. Claims 16, 19, 39, and 47 are rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Arai et al. 5,304,512 of record.

The especially pertinent portions of Khandros et al. are referred to in ¶ 2 above. While Khandros et al. may not disclose the use of a ring, it would have been obvious to one skilled in the art at the time applicants' invention was made to use a ring shown to be old in the art by Arai et al. (col. 8, lines 53-57) in the method of Khandros et al. where an ultimate product package having this type of support is desired.

6. Claim 28 is rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Condra et al. 5,304,252 of record.

Art Unit: 1208

The especially pertinent portions of Khandros et al. are referred to in ¶ 2 above. While Khandros et al. may not disclose the use of an interposer, protective barrier or solder mask which is an epoxy acrylic, it would have been obvious to one skilled in the art at the time applicants' invention was made to use the epoxy acrylic of Condra et al. (paragraph bridging col's. 4 and 5) as the interposer, solder mask, etc. in the method of Khandros et al. to take advantage of the desirable properties of said epoxyacrylic (loc cit).

7. Claim 29 is rejected under 35 U.S.C. § 103 as being unpatentable over Khandros et al. above in view of Eichelberger et al. 4,918,811 of record.

The especially pertinent portions of Khandros et al. are referred to in paragraph 2 above. While Khandros et al. may not disclose the use of vacuum lamination to apply their interposer or shadow mask, it would have been obvious to one skilled in the art at the time applicants' invention was made to use vacuum lamination to apply the "interposer" or shadow mask in the method of Khandros et al. since Eichelberger et al. (col. 7, lines 21-27) disclose said vacuum lamination as one of a number of alternatives for applying polymer films.

8. Applicant's arguments filed April 1, 1996 have been fully considered but they are not deemed to be persuasive.

Art Unit: 1208

In Fig. 3 of Khandros et al., interposer 36 and/or top layer 38 (col. 9, line 48-col. 10, line 24) protect(s) terminals 48. Moreover, Khandros et al. (col. 17, lines 31-36) teach the desirability of limiting the flow of encapsulant. Hence, it would be within the expected skill of a worker in the art to position barriers and/or masks to accomplish this objective. Since the examiner has adhered to the basic rejection, paragraph 2 above, applicants should present remarks addressing the secondary references and their combination with Khandros et al.

9. Claims 45-47 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 45-47 are indefinite in lacking antecedent basis in claim 41 (upon which they depend) for "said encapsulation barrier". In claims 45-47, "encapsulation" should be changed to --encapsulant--.

10. The disclosure is objected to because of the following informalities: The specification can not use numeral 29 to designate two different elements, that is, surface of can and fill hole. Appropriate correction is required.

Serial Number: 08/246,113

-6-

Art Unit: 1208

11. The proposed drawing corrections filed on April 1, 1996 are approved as to Fig's. 1 and 9; approved in part as to fig. 10B since it doesn't propose to change both occurrences of "40" to --48--; and disapproved as to Fig. 7 for the same reason set forth in ¶ 10 above.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lovering whose telephone number is (703) 308-0443. The fax phone number for this Group is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1235.

LOVERING:jd
JUNE 19, 1996

**RICHARD D. LOVERING
PRIMARY EXAMINER
GROUP 1200**